

## REMARKS

### *1. Status of claims*

Claims 1-21 are pending and under consideration.

### *2. Status of rejections*

In the prior office action dated August 7, 2008, the Examiner rejected claims 1-21 as allegedly being both anticipated under 35 U.S.C. § 102(b) and obvious under 35 U.S.C. § 103(a) over O'Brien, US 5,521,278 ("O'Brien") and Drysdale, US 5,236,560 ("Drysdale"). In the present office action, the Examiner rejected claims 1-21 as allegedly being obvious under 35 U.S.C. § 103(a) over O'Brien and Drysdale. Although the Examiner did not explicitly withdraw the anticipation rejection, Applicants conclude from the above facts that he has implicitly withdrawn the anticipation rejection. Applicants request correction if their conclusion is incorrect.

### *3. Claim rejections under 35 U.S.C. § 103(a)*

The Examiner rejected claims 1-21 as allegedly being obvious over O'Brien and Drysdale. Applicants traverse this rejection.

According to MPEP 2142, to reach a proper determination of obviousness under 35 U.S.C. §103(a), the examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all factual information, the examiner must then make a determination whether the claimed invention "*as a whole*" would have been obvious at that time to that person (emphasis added). Knowledge of applicant's disclosure must be put aside in

reaching this determination, yet kept in mind in order to determine the "differences," conduct the search and evaluate the "*subject matter as a whole*" of the invention (emphasis added). The tendency to resort to "hindsight" based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

Guidance in following the process of determining the obviousness of a claim has been provided by recent United States case law, specifically, *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In *KSR*, the Supreme Court indicated that, regardless of the particular rationale used, a finding of unpatentability under 35 U.S.C. § 103(a) requires an Examiner to show, among other findings, *both* (i) a finding that the person of ordinary skill in the art had *an apparent reason* to combine known options or known elements *and* (ii), if an apparent reason exists, a finding that the person of ordinary skill in the art could have pursued a combination *with a reasonable expectation of success*.

The above discussion of *KSR* assumes the art of record teaches all the elements or options. As should be apparent, if cited art fails to teach at least one option or element, a claim reciting that option or element must be patentable over that art.

The person of ordinary skill in the art would fail to arrive at the present invention because O'Brien and Drysdale fail to teach at least one option or element of the present claims.

The present claims are directed to a process comprising, among other elements, feeding a *vapour* product stream from a depolymerization reactor to a *rectification* column allowing liquefying components to flow back into the reactor and establishing two fractions in the rectification column as recited by the claims. Neither O'Brien nor Drysdale, alone or in any

combination, teach or suggest a rectification column allowing return flow of liquid condensing therein back into the reactor, or the two established fractions, much less the process as a whole comprising these elements.

Instead, the person of ordinary skill in the art having O'Brien and Drysdale before him or her at a time prior to the present invention, would conclude from O'Brien that any vapor stream from the reactor should be fed via a first line 25 to a condensor 1000, and the condensate from the condensor is fed via a further line 43 to a distillation column 1400. Concentrated lactide is then removed from the middle of the distillation column via line 59. O'Brien, col. 11, line 46 to col. 13, line 2 and Figures 1A and 1B. From Drysdale, he or she would conclude that a vapor stream from Drysdale's reactor should be fed to a partial condenser, the resulting condensate stream should be fed to a distillation column 1, and a vapour lactide-rich fraction should be removed from the lower part of the column via line 4. Drysdale, col. 4, line 45 to col. 6, line 15; and Figure 1.

Neither O'Brien nor Drysdale teach or suggest subjecting any vapor stream to the rectification as recited by the claims. E.g., col. 5, lines 13-35. They especially do not teach or suggest rectification to be performed in a rectification column mounted directly on the reactor such that vapor forming in the reactor passes directly into the rectification column and liquid condensing in the rectification column flows directly back into the reactor.

From O'Brien and Drysdale, the person of ordinary skill in the art would conclude that a variety of steps to be performed in different vessels with feeding of materials through dedicated lines is required to render material from the vapor stream suitable for recycle to the reactor. Therefore, O'Brien and Drysdale fail to teach or suggest using a rectification column as recited by the present claims, let alone one allowing liquefying components to flow back into a reactor.

Therefore, the present claims contain at least one option or element not taught or suggested by the cited art. As a result, the present claims are patentable over the cited art, and Applicants request this rejection of claims 1-21 be withdrawn.

4. *Conclusion*

Applicants submit all pending claims are in condition for allowance. The Examiner is invited to contact the undersigned patent agent at (713) 934-4065 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

WILLIAMS, MORGAN & AMERSON, P.C.  
CUSTOMER NO. 23720

June 17, 2009

/Raymund F. Eich/  
Raymund F. Eich, Ph.D.  
Reg. No. 42,508

10333 Richmond, Suite 1100  
Houston, Texas 77042  
(713) 934-4065  
(713) 934-7011 (fax)

AGENT FOR APPLICANTS